Agricultural Marketing Service

Federal Grain Inspection Service 2018 Annual Report

PROMOTE





PROVIDE

PROTECT



About This Report

Each year, pursuant to section 87(f-2) of the U.S. Grain Standards Act, the Federal Grain Inspection Service respectfully submits an annual report to the U.S. Congress. Activities described in this report cover Fiscal Year (FY) 2018 (October 1, 2017, through September 30, 2018).

All content is reported as Grain Inspection, Packers and Stockyards Administration (GIPSA). In FY 2018, the realignment of offices within the U.S. Department of Agriculture eliminates GIPSA as a standalone agency. The grain inspection activities formerly part of GIPSA are now organized under the Agricultural Marketing Service.

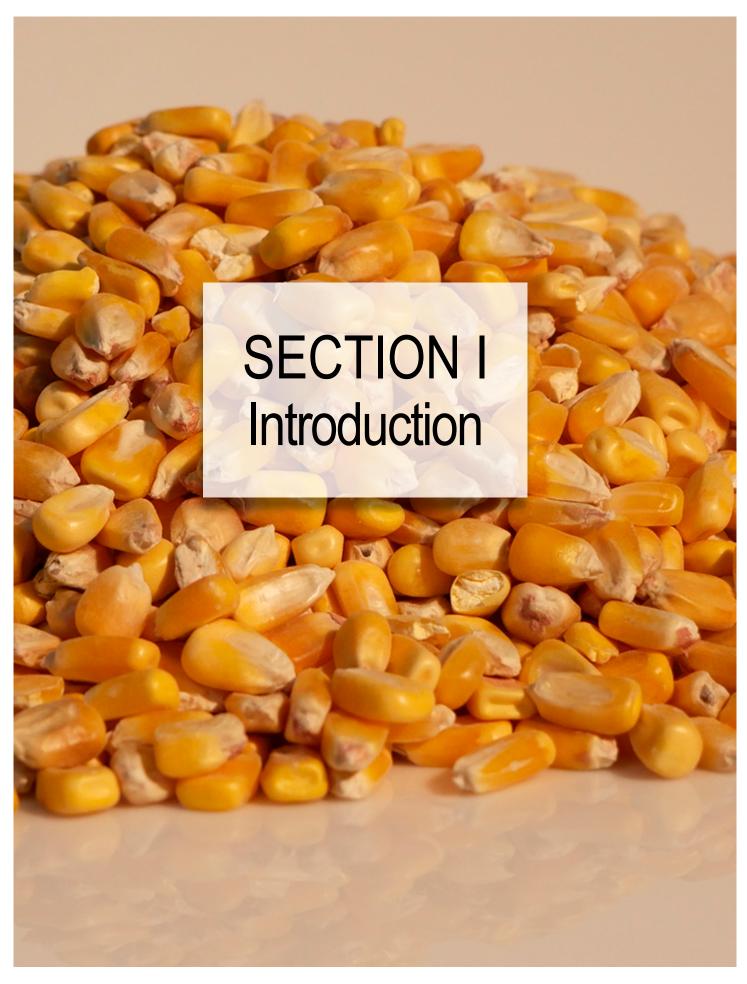
This report is divided into six sections. After the Introduction, Sections II through V represent program goals, and Section VI provides information regarding the Federal Grain Inspection Service's management initiatives and financial position.

Any mention of firm names or trade products does not imply that they are endorsed or recommended directly or indirectly by the U.S. Department of Agriculture.

This document is available in an electronic 508 PDF version on our website at www.ams.usda.gov/aboutams/accessibility.

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The Federal Grain Inspection Service

The U.S. Department of Agriculture's (USDA) Federal Grain Inspection Service (FGIS) establishes quality standards for grains, oilseeds, pulses, and legumes; provides impartial inspection and weighing services through a network of Federal, State, and private entities; and monitors marketing practices to enforce compliance with the U.S. Grain Standards Act, as amended, (USGSA) and the Agricultural Marketing Act of 1946, as amended (AMA). Through these activities, FGIS facilitates the marketing of grains, oilseeds, and related products.

FGIS administers uniform national grain inspection and weighing programs established by the USGSA. Services under the USGSA are performed on a fee basis for both export and domestic grain shipments. The USGSA requires that export grain be inspected and weighed, prohibits deceptive practices with respect to the inspection and weighing of grain, and provides penalties for violations.

Agency Mission

FGIS's primary mission is twofold: promote the marketing of high-quality grain to domestic and international buyers, and maintain objective standards for grain to certify its quality as accurately as practicable. These standards define uniform and descriptive terms to facilitate the grain trade, help determine grain storability, offer users the best possible information to determine end-product yield and quality, provide market incentive frameworks, reflect the economic value-based characteristics to endusers, and accommodate scientific advances in testing.



Grain Inspection, Packers and Stockyards Administration (GIPSA) and Agricultural Marketing Service (AMS) Merger

On November 14, 2017, Secretary Sonny Perdue issued a Memorandum that authorized the realignment of offices within the U.S. Department of Agriculture. This Memorandum eliminated GIPSA as a standalone agency and reorganized the grain inspection activities under AMS. AMS administers programs that create domestic and international marketing opportunities for U.S. producers of food, fiber, and specialty crops. AMS also provides the agriculture industry with valuable services to ensure the quality and availability of wholesome food for consumers across the country. The realignment was designed to improve upon customer engagement and maximize efficiencies.

Grain Inspection Advisory Committee

The Grain Inspection **Advisory Committee** meets no less than once a year to advise FGIS on the programs and services it delivers under the U.S. Grain Standards Act. Recommendations by the committee help FGIS to better meet the needs of its customers who operate in a dynamic and changing marketplace.



The committee comprises 15 members appointed by the U.S. Secretary of Agriculture who represent all segments of the grain industry. They include grain producers, processors, merchandisers, handlers, exporters, consumers, grain inspection agencies, and scientists. Committee members serve without compensation, but are reimbursed for travel expenses.

On September 5-6, 2018, the committee held a meeting at the National Grain Center (NGC) in Kansas City, Missouri. The committee listened to presentations on updates from Quality Assurance and Compliance Division, Technology and Science Division, International Affairs Division, Field Management Division, FGISonline, FGIS Budget, and USDA's Animal and Plant Health Inspection Service.

The committee meeting was attended by 14 committee members and 20 public attendees. Minutes, presentations, and other information on the committee can be found on the AMS public website www.gipsa.usda.gov/fgis/advcommittee/KC_GIAC_ Minutes_2018V3.0.pdf.

In Administering and Enforcing the USGSA, FGIS:

- Establishes and maintains official U.S. grain standards for barley, canola, corn, flaxseed, oats, rye, sorghum, soybeans, sunflower seed, triticale, wheat, and mixed grain;
- Promotes the uniform application of official U.S. grain standards by official inspection personnel;
- Establishes methods and procedures and approves equipment for the official inspection and weighing of grain;
- Provides official inspection and weighing services at certain U.S. export port locations and official inspection of U.S. grain at certain export port locations in eastern Canada along the St. Lawrence Seaway;
- Delegates qualified State agencies to inspect and weigh grain at certain U.S. export port locations;
- Designates qualified State and private agencies to inspect and weigh grain at interior locations;
- Licenses qualified State and private agency personnel to perform inspection and weighing services;
- Provides Federal oversight of the official inspection and weighing of grain by delegated States and designated agencies;
- Monitors the quality and weight of U.S. grain as received at destination ports, and investigates complaints or discrepancies reported by importers;
- Investigates, in cooperation with the USDA's Office of Inspector General, alleged violations of the USGSA and initiates appropriate corrective action; and
- Helps U.S. trading partners develop and improve their grain inspection and weighing programs.











Services Provided Under USGSA

Under provisions of the USGSA, most grain exported from U.S. export port locations must be officially weighed. A similar requirement exists for inspection, except for grain that is not sold or described by grade. The USGSA also requires that all corn exported from the United States be tested for aflatoxin prior to shipment unless the contract stipulates that testing is not required.





Employees and Locations

As of September 20, 2018, FGIS is comprised of 442 full-time, permanent employees and 75 temporary employees located at the headquarters unit in Washington, D.C.; the National Grain Center in Kansas City, Missouri; 7 field offices: and 1 Federal/State office. Field offices are located in Grand Forks, North Dakota; Kansas City, Missouri; League City, Texas; New Orleans, Louisiana; Portland, Oregon; Stuttgart, Arkansas; and Toledo, Ohio. FGIS also has a Federal/State office in Olympia, Washington.

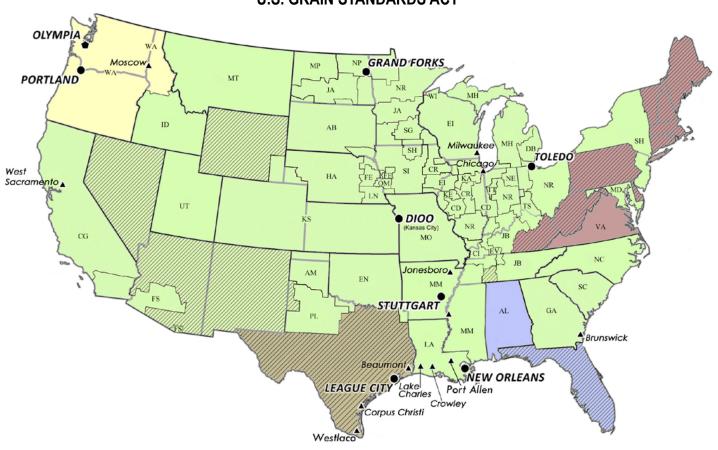
FGIS offers official inspection and weighing services in all areas of the United States and services for U.S. grain exported through Canadian ports.



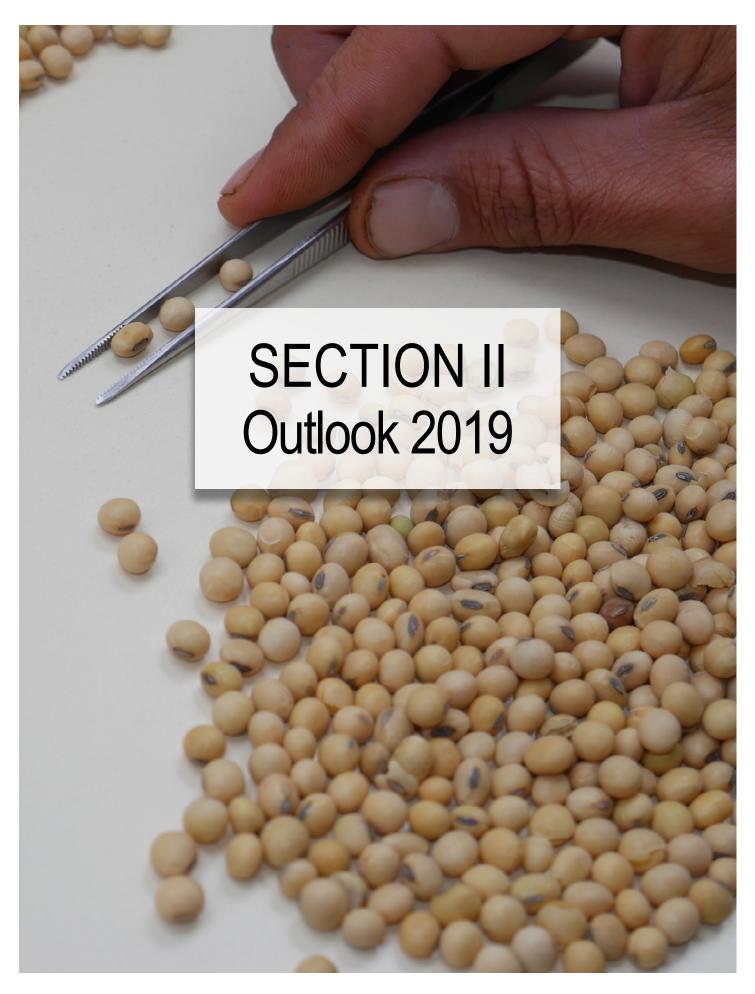




OFFICIAL AGENCY GEOGRAPHIC AREAS AND FGIS FIELD OFFICES **U.S. GRAIN STANDARDS ACT**



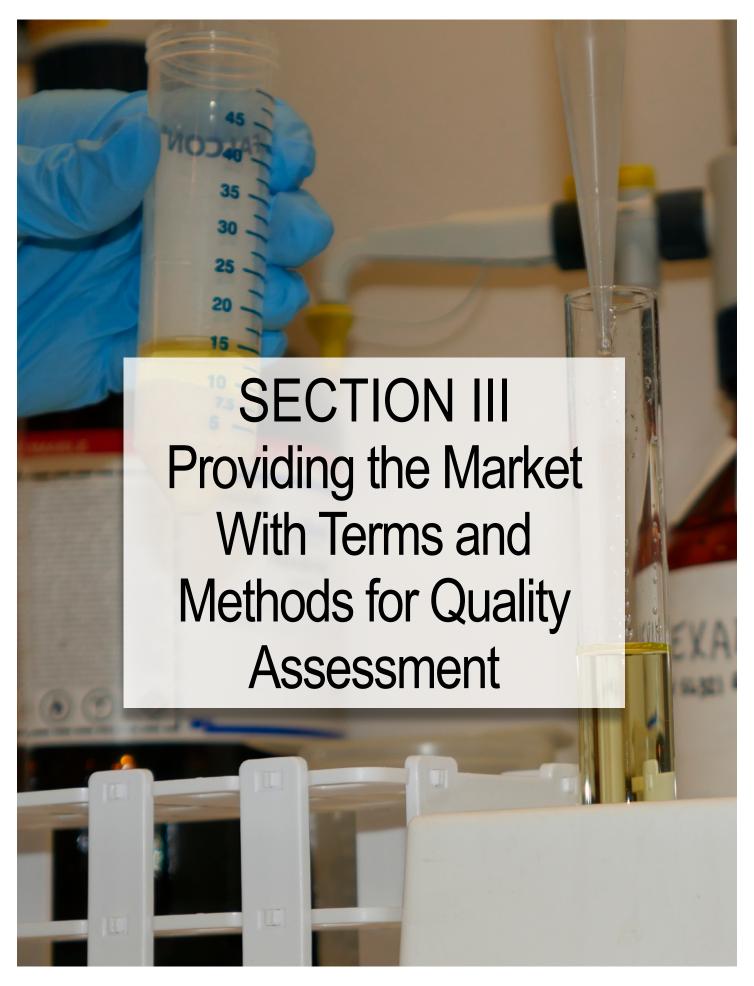
Des	ignated Private Age	ncies		Desig	nated States	Des	signated and Delegated States
AB	Aberdeen	MM Mid	idsouth	GA (Georgia	AL	Alabama
AM	Amarillo	MP Mir	inot	LA l	_ouisiana	SC	South Carolina
JB	Barton	NR No	orth Dakota	MD I	Maryland	VA	Virginia
CI	Cairo	NE No	ortheast Indiana	MO	Missouri	WA	Washington
CG	California Agri	NP No	orthern Plains	MT I	Montana	Dol	egated State
CD	Champaign	EV Oh	hio Valley	NC 1	North Carolina		•
DB	Detroit	OM On	maha	UT (Jtah	WI	Wisconsin
El	Eastern Iowa	PL Pla	ainview				
ΕN	Enid	SH Sc	chaal				
FS	Farwell Southwest	SI Sic	oux City	Field	Office Areas of Resp	onsih	nility
FE	Fremont	SG Sta	ate Grain	1 1014	DIOO (Grain/Pulses/Pro		•
HA	Hastings	TT Titu	tus		Stuttgart (Rice)	JCE35E	d Commodities)
ID	Idaho	TS Tri-	ri-State		League City		FGIS Field Office
JA	Jamestown				New Orleans		◆ Federal/State Office
KA	Kankakee				Olympia		▲ FGIS Duty Point
KS	Kansas				Toledo		☐ Official Agency Boundaries
KE	Keokuk						✓ Unassigned Areas
LN	Lincoln						☐ State Boundaries
MH	Michigan						_ 3.0.0 200301100
CR	Mid-Iowa						



U.S. Standards for Grain

FGIS regularly reviews the official standards for grain to ensure that the standards remain relevant to the marketplace. In FY 2018, FGIS completed its review of the U.S. Standards for Barley and published three Request for Comments notices in the Federal Register, opening review of the United States Standards for Corn, the United States Standards for Canola, and the United States Standards for Soybeans. The Request for Comments documents were published with a 60-day comment period. Stakeholders requested additional time to provide comments. FGIS published notices in the Federal Register extending the comment period an additional 60 days. The Final Rule revising the United States Standards for Barley became effective August 1, 2018.





Board of Appeals and Review

The Board of Appeals and Review (BAR) is a team of six senior-level grain inspectors led by a Chairman and an Assistant Chairman. The BAR is the final adjudication body for all disputes regarding subjective grain quality issues presented by any interested party in a grain transaction. The BAR performs appeal inspections after the issue has been considered by other FGIS field offices. The BAR rendered decisions on 347 grain appeals during FY 2018.



The BAR provided grain grading presentations and "hands on" grain grading training to domestic grain associations and international trade teams. BAR members also provided annual training for Federal and official agency grain inspectors at FGIS field offices.

The BAR is responsible for ensuring alignment of sensory inspections throughout the entire official inspection system. This is accomplished through a network of Quality Assurance Specialists (QAS) at both Federal and official agency inspection points. To maintain inspection alignment, the BAR holds annual QAS seminars for Federal and official agency QASs at the National Grain Center in Kansas City, Missouri. In FY 2018, the BAR also provided technical grain grading training for one newly appointed QAS, and a 1-week training course for five new QASs.



Pesticide Residue Testing and Method Development



FGIS provides pesticide residue testing services for applicants and for domestic and export surveys. In

addition, FGIS develops analytical methods to support these activities, which play a critical role in demonstrating the quality of U.S. grain as it relates to food safety, value, and adherence to U.S. and international regulatory limits.

Mycotoxin and Biotechnology Rapid Test Kit Evaluations

The grain industry needs fast reliable tests to detect and quantify the incidence of fungal-produced mycotoxins in grain as well as to accurately identify Genetically Engineered (GE) traits in grains. To ensure that commercially available tests provide reliable results, FGIS offers a performance evaluation and certification program. In FY 2018, 29 rapid test kits were evaluated for the analysis of mycotoxins (aflatoxins, deoxynivalenol, fumonisins, ochratoxin A, and zearalenone). Of the 29 test kits, 22 met the FGIS performance criteria and were certified.

WATER-BASED TEST KITS. A technology has been developed using water for the extraction of aflatoxins, deoxynivalenol, fumonisins, and zearalenone instead of more hazardous organic solvents. The use of water instead of organic solvents eliminates the need for special handling of this waste, thereby reducing overall costs. It also reduces possible exposure of operators to hazardous chemicals when performing these tests. Of the 28 kits currently approved for use by FGIS for analysis of mycotoxins, 21 use water-based extraction technologies.



MYCOTOXIN MONITORING PROGRAMS. In FY 2016. FGIS initiated monitoring programs for deoxynivalenol (DON) and aflatoxins, respectively, as part of an overall mycotoxin quality assurance program. Under the mycotoxin monitoring programs, a percentage of original inspection results obtained by service providers using an FGIS-approved test kit is compared to the results obtained from FGIS' reference methods. FGIS reference methods utilize highly sensitive and selective instrumentation; ultra-high performance liquid chromatography (UHPLC)/ tandem mass spectrometry and UHPLC/fluorescence, for DON and aflatoxins, respectively. Weekly and annual reports showing a comparison of the results obtained from the original inspection to those obtained by FGIS' reference method are provided to testing locations to assess their performance. Routine correspondence between official service providers and FGIS chemists is maintained to aid in report interpretation, quality assurance, and resolution of testing issues. In FY 2018, FGIS continued both DON and aflatoxin monitoring programs where 1,090 samples were analyzed from 59 specified service points (SSPs) for DON and 1,796 samples from 96 SSPs for aflatoxins.



WHEAT FUNCTIONALITY. The intrinsic qualities of wheat affect the quality of end products. To best determine the ability of wheat to meet specific end-use needs, accurate test methods are needed to differentiate functional qualities. These methods should also be practical, rapid, and reproducible among different laboratories to provide value transparency from the producer to the processor and provide information that better predicts appropriate end uses, thereby enhancing the marketability of U.S. wheat. The Falling Number test is an important measure of the effect of sprout damage on wheat and an indicator of the performance of wheat during the processing of flour for making various food products. In FY 2018, FGIS completed two rounds of check sample distributions and continued Falling Number inspection monitoring to evaluate accuracy of official testing. Reports were issued for both check sample distributions and monitoring program results summarizing testing performance. FGIS personnel provided on-site falling number training and evaluated the performance of each analyst. In May 2019, FGIS will implement a new barometric pressure correction and require the use of the Perten Shakematic for the determination of Falling Number for wheat grain to reduce overall variation of test results within the official inspection system.





Reference Method Analyses

FGIS establishes and performs reference methods for protein, moisture, oil, and mycotoxins. These methods are used to maintain the accuracy of current testing in the official inspection system and to support development of new rapid field tests. The protein, moisture, oil, and fatty acid reference analyses support the nearinfrared spectroscopic, dielectric, and nuclear magnetic resonance instruments used for rapid inspection at field locations that perform official testing. The mycotoxin reference analyses support the evaluation and standardization of rapid tests for official and commercial grain inspection, and support quality assurance programs ensuring consistent and reliable testing results. Reference method analysis is available upon request for Board Appeals of mycotoxins – aflatoxins, deoxynivalenol, fumonisin, ochratoxin A, and zearalenone.

In FY 2018, FGIS evaluated a method used by the U.S. Food and Drug Administration for extraction of several mycotoxins and verified that it compared closely with the FGIS reference methods for aflatoxins and deoxynivalenol. This effort helped ensure harmonization of results within the food safety and marketing sectors of the grain industry.





Biotechnology Proficiency Program



HARMONIZING BIOTECH REFERENCE METHODS. There is a need for highly specific and accurate tests for the various GE crops grown in the United States. FGIS has developed intralaboratory validated real-time polymerase chain reaction methods and has evaluated the accuracy, reliability, and proficiency of publicly available methods used to detect and identify GE grains and oilseeds. FGIS participated on a scientific panel of experts engaging U.S. stakeholders and influencing outcomes on issues related to testing of GE traits in grains with the goal of developing global scientific consensus regarding the analysis of transgenic events. FGIS continues to collaborate with international organizations such as Analytical Excellence through Industry Collaboration, International Organization for Standardization, American Association of Cereal Chemists International, The Global Low-level Presence Initiative, and the Canadian Grain Commission to harmonize testing technologies for GE grains and oilseeds.

FGIS' Biotechnology Proficiency Program now involves 210 organizations on five continents - Africa, Asia, Europe, and North and South America, with more than 80 percent of the participants from organizations outside the United States. FGIS bi-annually distributes blind test samples to participants and compiles and disseminates the results of tests. This program, which FGIS initiated in 2002, enables organizations to assess and improve their accuracy and precision in identifying genetically engineered (GE) events in grains and oilseeds and gives grain buyers and sellers confidence in the results produced by GE testing laboratories:

www.gipsa.usda.gov/fgis/proficiencyprogram.aspx



Standardizing Commercial Grain Inspection Equipment

National Type Evaluation Program (NTEP). In FY 2018, FGIS continued the cooperative effort with the National Conference on Weights and Measures (NCWM) and the National Institute for Standards and Technology to standardize commercial inspection equipment. The commercial inspection equipment includes moisture meters and any test weight modules contained within moisture meters, as well as near-infrared analyzers for protein, oil, and starch. FGIS served as the sole evaluation laboratory for grain inspection equipment under the NCWM NTEP.

FGIS collected grain moisture meter calibration data for eight instrument models as part of the NTEP ongoing calibration program. Calibrations developed in this program provide traceability throughout the official FGIS moisture program, including the air oven reference method, and they are used in the majority of moisture meters used for commercial grain transactions throughout the United States.

In FY 2018, FGIS' NTEP laboratory coordinated its issuance of Certificates of Conformance with FGIS' implementation of calibrations for the official moisture meter models for use with the major grains. This close coordination ensured that State-regulated commercial moisture meter users could use the same meters and calibrations as those used in official inspection.

In FY 2017, the NTEP laboratory began evaluation of a near-infrared analyzer for moisture, oil, and protein. The evaluation of this device is ongoing. In FY 2019, FGIS will collect grain moisture meter calibration data for eight NTEP models and will conduct NTEP testing for new grain inspection equipment models upon request.

















Promoting U.S. Grain to International Customers

FGIS personnel frequently meet with delegations visiting from other countries to brief them on the U.S. grain marketing system, our national inspection and weighing system, U.S. grain standards, and FGIS' mission. Many of these delegations are sponsored by USDA Cooperator organizations like U.S. Wheat Associates and U.S. Grains Council, which arrange visits to grain production areas, FGIS field offices, onsite laboratories at export grain elevators, and the FGIS National Grain Center (NGC) in Kansas City, Missouri. At the NGC, delegations often receive technical training on analytical testing procedures and grain inspection methods and procedures.





Briefings are tailored to address each group's interests and concerns. Presentations include explanations of the various services available from FGIS and the Official Agencies use of the latest technology to provide grain traders with accurate and reliable inspection and weighing information. For importers or potential importers new to the U.S. grain market, FGIS provides information on how to contract for the quality they desire.

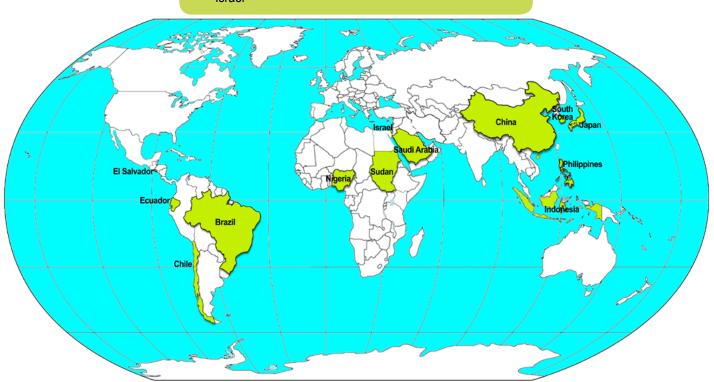
These briefings foster a better understanding of the entire U.S. grain marketing system and serve to enhance purchasers' confidence in U.S. grain. Ultimately, these efforts help move our Nation's harvest to end-users around the globe.

Visiting Trade and Governmental Teams

During 2018, FGIS personnel met with 21 teams from 13 countries.

- Brazil
- China
- Chile
- Ecuador
- El Salvador
- Indonesia
- Israel

- Japan
- Korea
- Nigeria
- Philippines
- Saudi Arabia
- Sudan



International Activities

TECHNICAL ASSISTANCE. In FY 2018, FGIS responded to customers' needs for technical assistance in foreign markets. Exporters, importers, and end-users of U.S. grains and oilseeds, as well as other USDA agencies, USDA cooperator organizations, and other governments, occasionally ask for FGIS personnel to provide expertise. These activities include representing the Agency at grain marketing and grain grading seminars, meeting with foreign governments and grain industry representatives to resolve grain quality and weight discrepancies, helping other countries develop domestic grain and commodity standards and marketing infrastructures, assisting importers with quality specifications, and training local inspectors in U.S. inspection methods and procedures. Such activities typically have been funded through various programs administered by USDA's Foreign Agricultural Service (FAS) or directly by FGIS.

From August 5-9, 2018, an FGIS representative traveled to Malaysia to participate in the Annual Southeast Asia Agricultural Cooperators Conference (ACC). The conference is an example of the collaboration undertaken by USDA cooperators who share the objective of fostering U.S. feed grain and oilseed sales in the Southeast Asia region. Over the last 16 years, the Conference has become a premier industry event that brings together high-level executives from major feed, livestock production, and grain trading companies from the region. Every year, the conference results in actual sales of U.S. corn, DDGS, soybean meal, wheat, and soybeans. Prior to the conference, FGIS also met with several grain organizations to discuss the services FGIS offers and also to discuss any concerns they may have had about U.S. grain imports.







From August 28-30, 2018, representatives from the U.S. soybean industry, along with importers and end users from 58 countries, attended the Global U.S. Soy and Specialty Grains Conference in Kansas City. Missouri. The National Grain Center gave tours of FGIS' various laboratories to three large groups attending the conference.

SOUTHEAST ASIA OUTREACH. In September 2018, FGIS temporarily stationed an International Grain Marketing Specialist in Asia for 4 weeks to work with Asian customers and their governments. FGIS was able to address immediate and long-term issues in the

region and promote a better understanding of U.S. sampling and inspection methods, which leads to fewer differences in test results. This assignment also provides FGIS with the opportunity to develop face-to-face relationships with customers, USDA cooperators and government officials.





During his time in Asia, the FGIS representative traveled to Indonesia, Thailand, Vietnam, Philippines, Japan, and Taiwan to conduct grading seminars and meet with individuals and groups involved in the grain and milling industry. The seminars, organized with the help of the USDA, Foreign Agricultural Service, U.S. Wheat Associates, U.S. Grains Council, and U.S. Soybean Export Council, provided much-needed technical education to foreign buyers and end users. While in Southeast Asia, the FGIS representative was also able to address several grain quality issues with the importers in one-on-one meetings, providing the personal customer service experiences that are highly valued in Asia.

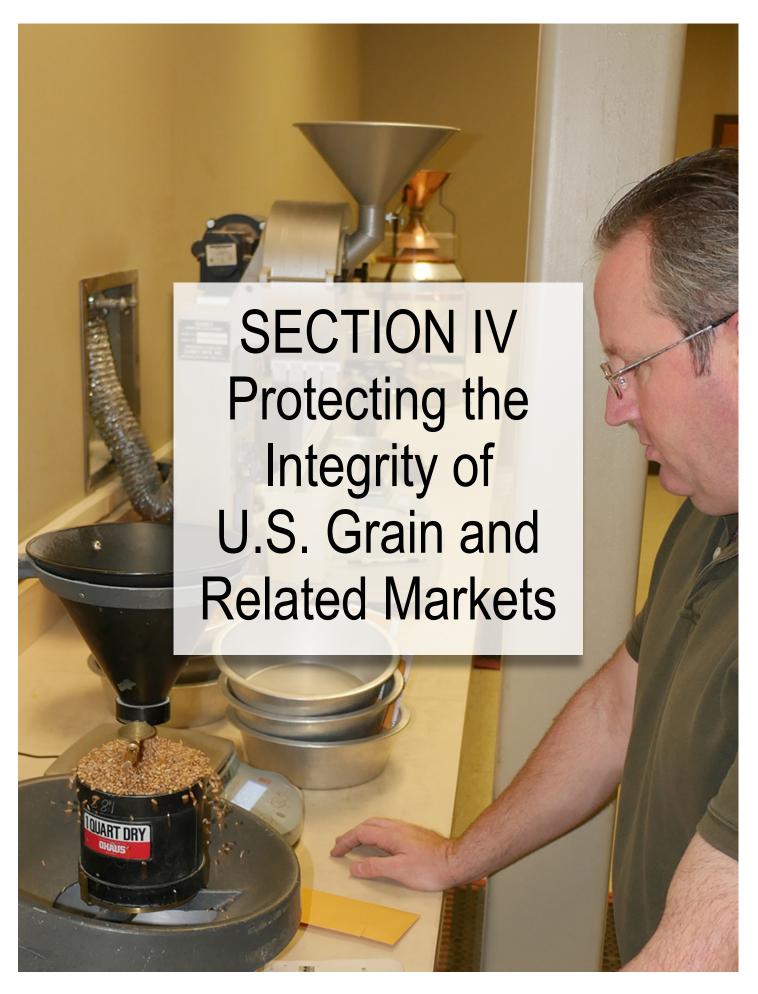
SOYBEANS TO CHINA. In December 2017, representatives from the USDA, Animal and Plant Health Inspection Service (APHIS) and FGIS traveled to China to meet with Chinese officials to discuss their Grain Export and Import Law, Decree 177, and propose a "Systems Approach" study to address their quarantine weed seed concerns and continue to allow U.S. soybean shipments entry into China uninterrupted. China agreed to a 3-year study to determine if any correlation exists between the amount of foreign material (FM) and the number of weed seeds present in soybean cargoes. In FY19, APHIS and FGIS will implement the 3-year study to collect FM samples from soybeans arriving at local, regional, and export grain facilities. The Agricultural Marketing Service (AMS) National Seed Testing Laboratory analyzes the weed seed content.

CORN, SOYBEANS, AND WHEAT QUALITY SURVEYS. FGIS coordinated with U.S. Grains Council and U.S. Wheat Associates to conduct export corn, soybean, and wheat quality surveys. FGIS assisted with the surveys by collecting, grading, and testing samples, and providing export inspection data. These surveys are conducted annually.



Summary of International Travel for Fiscal Year 2018

Purpose	Number of Travelers	Countries Visited	Dates of Visits
Stowage Examinations and Grain Inspections	1-4 per trip	Canada	5 trips - various dates
Asia Pacific Economic Cooperation	1	China	October 9 - 14, 2017
APHIS Bilateral Decree 177 Talks	1	China	December 8 - 12, 2017
Jordan Grain Standards	1	Jordan	February 1 - 8, 2018
Rice Testing Algorithms	1	Switzerland	February 23 - March 3, 2018
US - Japan Committee on Toxin Microorganisms	1	Japan	April 23 - 27 2018
Codex Committee on Methods of Analysis and Sampling	1	Hungary	May 7 - 11, 2018
Africa Food Safety Workshop	1	South Africa	June 1 - 10, 2018
Southeast Asia Agricultural Cooperators Conference	1	Malaysia	August 5 - 9, 2018
Association of Official Agricultural Chemists Annual Conference	2	Canada	August 26 - 29, 2018
Global Low Level Presence Initiative	2	Brazil	September 23 - 30, 2018
CDO - Southeast Asia	1	Indonesia, Thailand, Vietnam, Philippines, Japan, Taiwan	August 31 - September 29, 2018



Alleged Violations

At the beginning of fiscal year FY 2018, seven cases involving alleged violations of the USGSA were pending. During the FY, FGIS opened nine new cases stemming from engaging in prohibited or deceptive grain handling practices, exporting grain without official personnel onsite to witness the loading. FGIS closed nine cases from prior years (2014, 2015, and 2016) during FY 2018. There are currently seven pending cases.

Violations of

provisions in the U.S. Grain Standards Act

Registrants to Export Grain

The USGSA requires that all persons who buy, handle, weigh, or transport 15,000 metric tons or more of U.S. grain for sale in foreign commerce during the current or previous calendar year must register with FGIS. During FY 2018, FGIS issued 96 Certificates of Registration to individuals and firms to export grain.

Domestic Grain Inspection



FGIS oversees 45 official State and private agencies that provide official services under the USGSA. FGIS supervises 33 official private agencies and 7 official State agencies that are designated to provide official inspection and/or weighing services in domestic markets; 4 official State agencies that are delegated to provide mandatory official export inspection and weighing services and designated to provide official domestic inspection and weighing services within the State; and 1 official State agency that is delegated to provide mandatory official export inspection and weighing services within the State.

In FY 2018, FGIS renewed nine official agencies. There were 6 agencies and 1 State agency renewed for full 5-year designations and 1 private agency and 1 State agency renewed for 3-year designations. In addition, FGIS amended the geographic area for two official agencies.

RESPONSE TO INADVERTENT RELEASE OF UNAPPROVED TRAITS INTO THE MARKETPLACE. In recent years, there have

been rare occasions when unapproved GE events entered into the U.S. grain handling system. When such an inadvertent release occurs, a rapid response is necessary to identify and validate methods to detect the trait and thereby protect the integrity of U.S. grain markets. The testing methods must be highly specific and sensitive to effectively maintain confidence in U.S. grain marketing systems. Current detection methods within FGIS' Biotechnology Laboratory focus on high-throughput DNA extraction methodologies, which enables FGIS to more effectively respond to inadvertently released products. FGIS has completed the development of high-throughput DNA extraction methods for corn, soybeans, wheat, and rice. FGIS assists government and private laboratories that



use protein and DNA-based technologies by performing impartial third-party verification of their methods for both qualitative and quantitative detection of transgenic events in GE crops. FGIS involvement in responding to such incidents facilitates harmonization of sampling plans and of international testing for GE grains and oilseeds. FGIS provides expertise to USDA's APHIS when responding to inadvertent releases of unapproved GE events.

Meeting the Needs of International Customers

FGIS administers a formal process for investigating grain quality and weight discrepancies. When an importer of U.S. grain submits a claim regarding quality or weight, FGIS analyzes samples retained on file from the original inspection and analyzes samples submitted from the complainant (if the buyer chooses to submit them) to evaluate the accuracy of the initial inspection. This process allows FGIS to verify whether the original inspection and weighing service provided at the time of loading was correct, based on all available information. FGIS then issues a report outlining its findings.

Occasionally, a particular buyer or importing country reports repeated discrepancies that cannot be resolved by a shipment-byshipment review under this process. In such cases, FGIS may conduct collaborative sample studies or joint monitoring activities to address the discrepancy in a more comprehensive manner.

In FY 2018, FGIS received four quality complaints and one weight complaint from importers on grains inspected under the U.S. Grain Standards Act, as amended. The complaints involved 212,154 metric tons of the 139,458,344 metric tons of grain exported in FY 2018, or 0.15 percent by weight.

COMPLAINTS REPORTED BY IMPORTERS ON INSPECTION AND WEIGHING IN FISCAL YEAR 2018

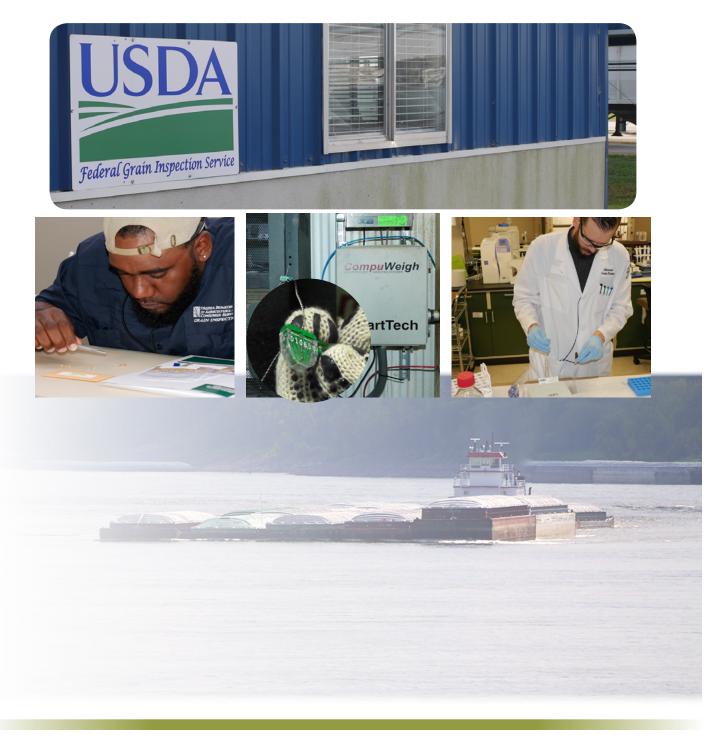
Complainant	Grain/Commodity	Number of Complaints	Nature of Complaint
China	Corn	1	Broken corn and foreign material
China	Soybeans	2	Weed seeds, damaged kernels heat damage, heating, and odor
Costa Rica	Soybeans	1	Short weight
	TOTAL	4	



Partnerships With States and Private Entities

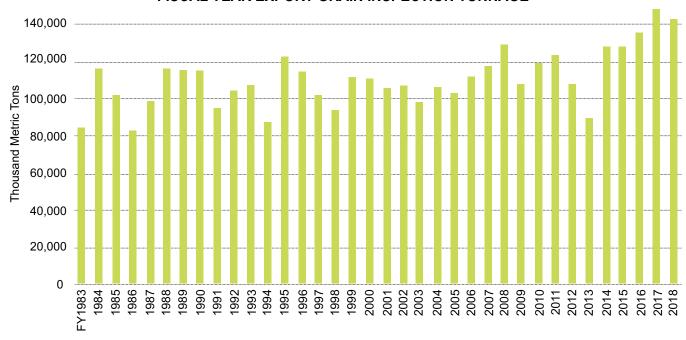
FGIS manages the national inspection and weighing system through a unique network of approximately 2,000 staff members at Federal, State, and private laboratories that serve grain producers, handlers, processors, and exporters across the country.

FGIS' State and private partners are authorized to provide official services on FGIS' behalf under the authority of the USGSA. FGIS delegates States to provide official inspection and weighing of U.S. grain at export port locations and designates States and private agencies to provide official inspection and weighing services in the domestic market.



Exports of U.S. grain for FY 2018 exceeded 139.4 million metric tons, falling in second to the all-time high of 145.9 million metric tons set in FY 2017. Even though the FY record was not achieved, the total volume for the months of April, May, and June combined reached a record high. This helped narrow the gap from being down nearly 19 percent at the end of January year over year to only missing the record by only 4.4 percent. Overall, FY 2018 was 11.3 percent above the 5-year average.

FISCAL YEAR EXPORT GRAIN INSPECTION TONNAGE





INSPECTION PROGRAM DATA

	FISCAL YEARS	
2016	2017	2018

QUANTITY OF STANDARDIZED GRAIN OFFICIALLY INSPECTED 1 (MMT)2

Domestic	188.9	194.3	187.8
Export by FGIS	85.7	90.9	80.8
Export by Delegated States	35.7	40.2	43.3
Export by Designated States	11.8	14.9	15.3
TOTAL	322.1	340.3	327.2



¹Quantity of Standardized Grain Officially Inspected includes grains for which FGIS maintains official standards: barley, canola, corn, flaxseed, oats, rye, sorghum, soybeans, sunflower seed, triticale, wheat, and mixed grain.

² Million Metric tons.

INSPECTION PROGRAM DATA

FISCAL YEARS					
	2016	2017	2018		
NUMBER OF O	FFICIAL ORIGINAL I	NSPECTIONS4			
FGIS	116,332	115,643	101,912		
Delegated States / Official Agencies	3,268,868	3,333,922	3,226,909		
TOTAL	3,384,806	3,449,565	3,328,821		
		-0-1010			
NUMBER OF GRAIN REINSPECTIONS FGIS 393 329 356					
Delegated States / Official Agencies	21,341	26,299	26,775		
TOTAL	21,734	26,628	27,131		
21,101					
NUMBER OF GRAIN INSPECTION APPEALS					
Field Offices	2,544	3,610	2,197		
Board of Appeals and Review	371	481	351		
	2,915	4,091	2,548		
NUMBER OF OFFICIAL COMMERCIAL INSPECTIONS					
FGIS	17,958	14,682	15,874		
Delegated States / Official Agencies	1,337,810	1,333,979	1,230,558		
TOTAL	1,355,768	1,348,661	1,246,432		
1,010,001					
NUMBER OF BARLEY PROTEIN INSPECTIONS					
FGIS	33	2	0		
Delegated States / Official Agencies	5,113	4,876	3,549		
TOTAL	5,146	4,878	3,549		

⁴ Includes original inspections for grade, factor-only, official criteria, and official commercial inspections.

	INSPE	ECTIO)N PRO	GRAM	DATA
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NUMBER OF CORN PROTEIN, OIL, AND STARCH INSPECTIONS FGIS 4 0 Delegated States / Official Agencies 3,121 375 TOTAL NUMBER OF WHEAT PROTEIN INSPECTIONS	2018 8 1,146 1,154				
FGIS 4 0 Delegated States / Official Agencies 3,121 375 TOTAL 3,125 375	8 1,146				
FGIS 4 0 Delegated States / Official Agencies 3,121 375 TOTAL 3,125 375	8 1,146				
Delegated States / Official Agencies3,121375TOTAL3,125375	1,146				
TOTAL 3,125 375					
	1,154				
NUMBER OF WHEAT PROTEIN INSPECTIONS					
HOMBELL OF THIEFTH IN THE EVILUATION					
FGIS 13,218 6,827	7,428				
Delegated States / Official Agencies 444,221 505,992	360,973				
TOTAL 457,439 512,819	368,401				
NUMBER OF SOYBEAN PROTEIN AND OIL INSPECTIONS					
FGIS 6,467 7,690	7,419				
Delegated States / Official Agencies 5,009 4,652	5,361				
TOTAL 11,476 12,342	12,780				
NUMBER OF SUNFLOWER SEED OIL INSPECTIONS					
FGIS 0 0	0				
Delegated States / Official Agencies 18,891 127,529	18,022				
TOTAL 18,981 127,529	18,022				
NUMBER OF AFLATOXIN INSPECTIONS					
FGIS 2,786 2,392	2,480				
Delegated States / Official Agencies 120,105 134,672	139,396				
TOTAL 122,891 137,064	141,876				

INSPECTION PROGRAM DATA

	FISCAL YEARS	
2016	2017	2018

NUMBER OF DEOXYNIVALENOL INSPECTIONS

FGIS	10,398	6,067	6,633
Delegated States / Official Agencies	126,626	136,170	85,473
TOTAL	137,024	142,237	92,106

NUMBER OF FUMONISIN TESTS

FGIS	55	12	49
Delegated States / Official Agencies	3,790	10,504	33,564
TOTAL	3,845	10,516	33,613



WEIGHING PROGRAM DATA

	_						
		FISCAL YEARS					
Official Weight Certificates Issues	2016	2017	2018				
FGIS							
Class X ¹	49,030	48,977	49,436				
Class Y ²	29,509	23,515	24,528				

DELEGATED STATES / OFFICIAL AGENCIES

78,539

72,492

73,964

TOTAL

Class X ¹	169,906	257,527	309,512
Class Y ²	57,068	67,166	62,906
TOTAL	226,974	324,693	372,418

EXPORTED GRAIN WEIGHED (MMT)

FGIS	85.3	90.3	80.5
Delegated States	34.4	38.7	42.0
TOTAL	119.7	129.0	122.5

¹ Class X weighing involves 100 percent supervision of weighing.

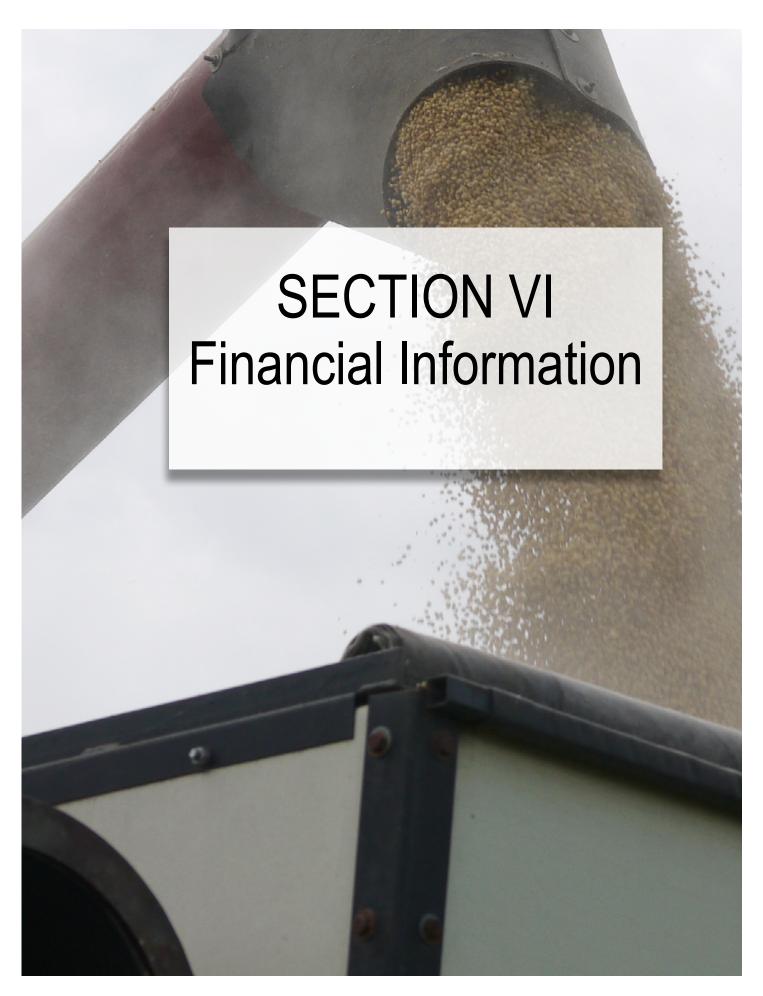
² Class Y weighing involves a minimum of 25 percent of supervision of weighing.

VOLUME OF EXPORT GRAIN INSPECTIONS BY PORT AREAS FISCAL YEAR 2018

Port Areas	Metric Tons (mt)	Percent of Total U.S. Exports
California	27,154	0.02%
Chicago	424,937	0.30%
Columbia River	33,151,985	23.49%
Duluth-Superior	706,144	0.50%
East Gulf	552,313	0.39%
Interior ¹	17,051,997	12.08%
Lake Ontarior	22,510	0.02%
Lake Superior	19,537	0.01%
Mississippi River	66,722,853	47.28%
North Atlantic	108,975	0.08%
North Texas	5,233,091	3.71%
Puget Sound	10,097,306	7.15%
South Atlantic	2,391 506	1.69%
South Texas	3,307,955	2.34%
Seaway	189,120	0.13%
Toledo	1,117,823	0.79%
TOTAL	141,125,206	100.00%



¹ Figures include all rail and containers loaded in the continental United States destined for export. The primary destination for rail shipments is Mexico, with containers shipped worldwide through established ports.



FGIS User Fee Accounts ¹					
1 010 03el 1 ee Accounts	Revenue	Obligations	Profit/Loss	Operating Reserves ²	
U.S. Grain Standards Act					
Inspection & Weighing	\$36,996,535	\$39,321,550	(\$2,325,015)	\$21,561,945	
Official Agencies	\$75	\$1,882,463	(\$1,882,388)	\$5,084,246	
TOTAL FY 2018	\$36,996,610	\$41,204,013	(\$4,207,403)	\$26,646,191	

Appropriations (Dollars in millions)³

Discretionary Appropriations	FY 2012	FY2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
	\$16.48	\$20.8	\$17.91	\$20.0	\$20.0	\$20.0	\$20.0

Obligations are total obligations to support the program during fiscal year 2018 regardless of budget period funding source used.

² Includes adjustments to prior year revenue and obligations.

³Appropriations include sequestration and rescission amounts.

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